# NATIONAL MAPPING PROGRAMS BACKGROUND FACT SHEETS

The following Fact Sheets provide summary information on the primary national mapping programs that are tracking, developing, and/or sharing geospatial data. This information is available to support the Regions and the RMCs as they conduct regular planning and project management activities.

In addition, this coordination supports successful relationships that are needed between the Regions/RMCs and other State and Federal personnel.

Programs identified here are not static. New data is being added to the national inventory every month. Future efforts and planned projects are constantly being updated. Therefore, it is appropriate to review national programs as well as local data sources in order to obtain the most current data available.

The programs detailed here include:

- o National Digital Orthophoto Program (NDOP)
- National Elevation Dataset (NED)
- National Agriculture Imagery Program (NAIP)
- o NRCS/USDA Geospatial Data Gateway
- o US Census MAF/TIGER Accuracy Improvement Project (MTAIP)
- National Geospatial-Intelligence Agency (NGA)

Each of the data development programs listed here focuses on the specific needs of their end users. However, they all contributed in a coordinated way to the development of the national base map.

FEMA Map Modernization serves critical roles in both the development of accurate data and the coordination of geospatial activities and progress of those activities. Understanding and participating in these programs will help achieve the goal of the National Spatial Data Infrastructure (NSDI), which is to build a physical, organizational, and virtual network that is designed to enable the development and sharing of this nation's digital geographic information resources.

## National Digital Orthophoto Program (NDOP)

www.ndop.gov

## **Program Highlights**

#### Data Product

- o 1 meter resolution black and white orthophotography nationwide
- 1 foot resolution natural color orthophotography in selected urban areas

## Advantages

- o 1 meter data is available nationally
- All these data meet FEMA accuracy specification
- Uncompressed imagery provides the maximum visual quality
- Source of orthophotos if local or state data is not available
- Urban area orthos are very recent
- Accessible through the Seamless Data
   Distribution System (<a href="http://seamless.usgs.gov">http://seamless.usgs.gov</a>)

## 

## Disadvantages

- o High resolution data in urban areas more difficult to manipulate due to file size.
- o Much of the 1 meter data is several years old
- Full resolution quarter quad tiles also are difficult to manage compared to compressed mosaics of same imagery available from USDA
- Limited areas are fairly poor quality or Color-Infrared photography which is not as visually pleasing

## **Program Overview**

The National Digital Orthophoto Program (NDOP) was chartered in 1993 as a consortium of Federal agencies with the purpose of developing and maintaining national orthoimagery coverage in the public domain by establishing partnerships with Federal, State, local, tribal, and private organizations.

#### **Data Details**

DOQs are black and white (B/W), natural color, or color-infrared (CIR) images with 1-meter ground resolution.

The USGS produces three types of DOQs:

1. **3.75-minute (quarter-quad) DOQs** are available in both Native and GeoTIFF formats. DOQs in native format are cast to the Universal Transverse Mercator (UTM) projection and referenced to either the North American Datum (NAD) of 1927 (NAD27) or the NAD of 1983 (NAD83). DOQs in GeoTIFF format are cast to the UTM projection and referenced to NAD83. The average file size of a B/W quarter quad is 40-45 megabytes, and a color file is generally 140-150 megabytes. Quarter-quad DOQs are distributed on CD-ROM, DVD, 8-mm tape, and File Transfer Protocol (FTP) as uncompressed files. Software is available that will convert a DOQ image from Native to GeoTIFF format in either NAD27 or NAD83 (download from <a href="http://rmmcweb.cr.usgs.gov/software/">http://rmmcweb.cr.usgs.gov/software/</a>).

- 2. **7.5-minute (full-quad) DOQs** cover an area measuring 7.5-minutes longitude by 7.5-minutes latitude. Full-quad DOQs are mostly available for Oregon, Washington, and Alaska. Limited coverage may also be available for other states.
- 3. **County DOQs** consist of collections of individual DOQs that have been compiled on a county-by-county basis. There is fairly good coverage for counties in Kansas, Georgia, Minnesota, North Carolina, and Pennsylvania. Other states may also have limited counties available. The files are cast to the UTM projection and referenced to either NAD27 or NAD83. County DOQs are packaged as individual JPEG-compressed 8-bit binary files on CD-ROM.

## **Data Applicability to Flood Mapping Program**

All these data meet FEMA's accuracy specifications and could be used as base maps for DFIRMs if the image quality is acceptable.

#### **Data Availability**

Data status can be found at the following locations:

- Status of Digital Orthophotoquad Production First Generation Coverage <a href="http://www.ndop.gov/status">http://www.ndop.gov/status</a> dog first gen.html
- Status of Digital Orthophotoquad Production Second Generation Coverage <a href="http://www.ndop.gov/status">http://www.ndop.gov/status</a> dog second gen.html
- Source Year for Available Digital Orthophotoquads (Grouped by year ranges) <a href="http://www.ndop.gov/status">http://www.ndop.gov/status</a> dog range1.html
- Source Year for Available Digital Orthophotoquads (Showing exact year) http://www.ndop.gov/status\_doq\_range2.html
- Availability of USGS Data <u>http://geography.usgs.gov/www/products/status.html</u>
- High Resolution Orthoimagery List http://edcw2ks51.cr.usgs.gov/website/orthoimagery/documents/listofHRO.php

#### **Data Ordering**

DOQs are available from EROS Data Center (<a href="http://edc.usgs.gov/products/aerial/doq.html">http://edc.usgs.gov/products/aerial/doq.html</a>) on DVD, CD, 8 mm tape, and via FTP (download). County DOQs are available only on CD, and typically require multiple CDs per county.

## **National Elevation Dataset (NED)**

http://ned.usgs.gov/

## **Program Highlights**

#### Data Product

- o 1 arc second (30 meter) posting DEM
- o 1/3 arc second (10 meter) posting DEM
- o 1/9 arc second (3 meter) posting DEM

## Advantages

- o Most edge matching / seam issues from quad based DEMs have been fixed
- o 1/3 arc second NED provides very close fidelity to quad contours avoids many of the problems in original 30 meter DEMs. Good enough for A zone mapping.
- o 1/9 arc second data generally good enough for detailed study

#### Disadvantages

- o 1 arc second NED based on many sources with variable quality. Generally not suitable for hydraulics or floodplain mapping
- 1/3 and 1/9 arc second data not available everywhere, though 1/3 arc second covers nearly half of CONUS.
- o 1/3 arc second quality varies based on original quad contour interval
- o Small areas of 1/3 arc second data is resampled 1 arc second data and low quality. Generally occurs at state boundary where 1 arc second state and 1/3 arc second state appear on same quad tile. Area of 1 arc second state will be resampled data.

#### **Program Overview**

The USGS National Elevation Dataset (NED) has been developed by merging the highest-resolution, best quality elevation data available across the United States into a seamless raster format. NED has a consistent projection (Geographic), resolution (1 arc second), and elevation units (meters). The horizontal datum is NAD83, except for AK, which is NAD27. The vertical datum is NAVD88, except for AK, which is NAVD29. NED is a living dataset that is updated bimonthly to incorporate the "best available" DEM data. As more 1/3 arc second (10m) data covers the US, then this will also be a seamless dataset.

## **Data Details**

NED is designed to provide National elevation data in a seamless form with a consistent datum, elevation unit, and projection. Data corrections were made in the NED assembly process to minimize artifacts, perform edge matching, and fill sliver areas of missing data. NED has a resolution of one arc-second (approximately 30 meters) for the conterminous United States, Hawaii, Puerto Rico and the island territories and a resolution of two arc-seconds for Alaska. NED data sources have a variety of elevation units, horizontal datums, and map projections. In the NED assembly process the elevation values are converted to decimal meters as a consistent unit of measure, NAD83 is consistently used as horizontal datum, and all the data are recast in a geographic projection. Older DEMs produced by methods that are now obsolete have been filtered during the NED assembly process to minimize artifacts that are commonly found in data produced by these methods. Artifact removal greatly improves the quality of the slope, shaded-relief, and synthetic drainage information that can be derived from the elevation data. NED processing also includes steps to adjust values where adjacent DEMs do not match well, and to fill sliver areas of missing data between DEMs. These processing steps ensure that NED has no void areas and artificial discontinuities have been minimized. The artifact removal filtering process does not eliminate all of the artifacts. In areas where the only available DEM is produced by older methods, then "striping" may still occur

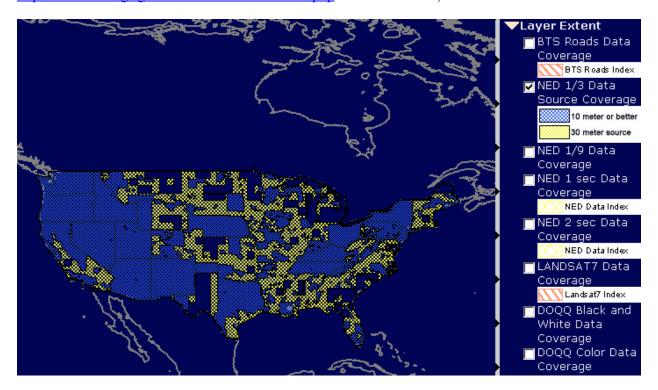
## **Data Applicability to Flood Mapping Program**

- o 1/3 arc second data provides very close fidelity to quad contours and is acceptable for Risk Class C (see MHIP Section 7.0 for definition of Risk Class C).
- o 1/9 arc second data is generally good enough for detailed study.

#### **Data Availability**

The data dictionary, release notes, and update information can be found at ftp://edcftp.cr.usgs.gov/pub/data/ned/.

The following figure illustrates 1/3 arc second data coverage (check http://seamless.usgs.gov/website/seamless/viewer.php for current status):



## **Data Ordering**

Data is available at the SDDS. The data is publicly accessible for free download as small files or larger areas on media (CD or DVD). As areas are processed they will be made available as a seamless product on the Seamless Data Distribution System-Enhanced (SDDS-E): <a href="http://seamless.usgs.gov/">http://seamless.usgs.gov/</a>.

## **National Agriculture Imagery Program (NAIP)**

www.apfo.usda.gov

## **Program Highlights**

#### Data Product

- County level and Quarter Quad orthophotography
- o 1 meter or 2 meter available (more detail below)
- Limited areas captured using Leica ADS40 Airborne Digital Sensor

## Advantages

More recent than NDOP DOQs

## Disadvantages

- Imagery is acquired during peak growing season; may not be suitable for areas with heavy "leaf on" conditions
- o 2 meter data not acceptable for FEMA base map
- o 2002-2004 County Mosaics compression degrades visual quality substantially
- o Annual progress is being made, but national coverage is not available

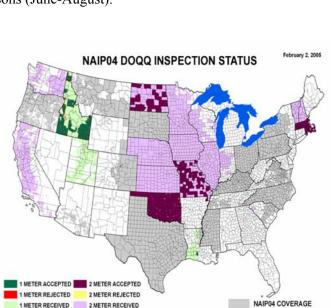
## **Program Overview**

In 2002, the USDA started the NAIP to support the continued development of their own GIS program through the acquisition of digital orthophotography. This imagery, when used in conjunction with other land and customer information already available, provides the ability to effectively administer farm programs, and georeference natural disasters and animal or plant disease outbreaks to support better decision making. The program's goal is to acquire imagery annually over large parts of the contiguous 48 states, and deliver it to users within a few months time frame. In order to support agriculture analysis, imagery is captured during the peak growing seasons (June-August).

#### **Data Details**

There are two primary data products that are developed and available through NAIP. These include the Compressed County Mosaic (CCM) and the Full Resolution Quarter Quad Tiles (QQ). They are available in 1 or 2 meter resolution, depending on the priority of the project area and availability of contributing partner funds.

Because the imagery is captured during peak growing season, this "leaf on" status is likely to obscure some ground level features, especially in heavily treed areas. This should be an issue to consider based on the geography of the region under consideration. All data comes with a full suite of FGDC compliant metadata for documentation.



National Agriculture Imagery Program

Farm Service Agency

## Compressed County Mosaic (CCM)

The CCMs are developed for the convenience of full county coverage. In many contexts, it is easier to manipulate a single, full county file than multiple, smaller DOQQs. These are useful when larger geographic coverage is required. Because the files are compressed, however, there is some loss of quality of the image. The CCM format is MrSID.

## Full Resolution Quarter Quad Tiles (QQs)

The QQ is the full resolution standard delivery product. The QQ can be a better format when smaller geographic areas are concerned as they cover an area measuring 3.75-minutes longitude by 3.75-minutes latitude, or approximately 2.5 miles on each side. The DOQQ format is GeoTIFF.

## Leica ADS40 Airborne Digital Sensor

In some cases, vendors use the ADS40 for an entire state. This sensor automatically captures stereoscopic imagery simultaneously with the orthophoto collection. It may be possible to negotiate with the vendors to produce high quality elevation for targeted areas using these data. Because the data is already acquired, this may be a practical way to obtain small areas of quality elevation for high risk areas. Other digital cameras are beginning to offer similar elevation products, too.

## **Data Applicability to Flood Mapping Program**

1 meter data is acceptable for FEMA base maps provided vegetation does not obscure roads or other important ground features. This imagery is more recent than NDOP DOQs, but 2 meter data and highly compressed county mosaics are not acceptable for FEMA base maps.

#### **Data Availability**

The following states have 1 meter imagery from 2004 available:

- Idaho
- Kentucky
- Louisiana (partial)
- Mississippi (partial)
- Ohio
- Pennsylvania
- South Dakota
- Texas
- Utah (partial)

The following states are planned for 1 meter imagery acquisition in 2005:

- California
- Colorado
- Maryland
- Michigan
- Montana
- North Dakota
- Oregon
- South Carolina
- Wisconsin

See http://www.apfo.usda.gov/Imagery%20Status.html for more information.

<u>**Data Ordering**</u> To order NAIP imagery, visit

- http://www.apfo.usda.gov/Ordering%20Products.htm
   http://www.apfo.usda.gov/Ordering%20NAIP%20Imagery.htm.

For more information call (801) 975-3500.

## NRCS/USDA Geospatial Data Gateway

http://datagateway.nrcs.usda.gov/GatewayHome.html

## **Program Highlights**

#### Data Product

- The Geospatial Data Gateway provides One Stop Shopping for natural resources or environmental data
- Source for USDA Countywide Compressed Orthophoto Mosaics

#### Advantages

- O Data downloads are free and near-real time
- Compressed, mosaiced counties are easier to work with, color balanced, and potentially more accurate than individual quarter quad NDOP DOQs

#### Disadvantages

- Compression of imagery may degrade visual quality
- o County mosaics generally use first generation NDOP imagery so they are fairly old.
- O USDA is not the authoritative source for all data on the site, so some data may be out of date (e.g., NED Data)



The Geospatial Data Gateway is intended to provide a single access point for resource data. It provides a way to easily locate data that exist for selected geographic areas, find the types of data for that area, and deliver the data packaged in formats compatible with commercial and USDA Service Center application formats.

One major purpose of the Gateway is to support the development, presentation, and dissemination of information by Service Center field staff working in the field with customers away from the office.

However, the public has access to the Gateway to find and retrieve resource data.

#### **Data Details**

The data sets served by the Gateway are primarily determined by the USDA Service Center Geographic Information System (GIS) Strategy. The data themes are listed on the Gateway Data Management page (http://datagateway.nrcs.usda.gov/data.html). This page also identifies non-geospatial data that may be available through the Gateway.

By using the FGDC metadata standards, the Geospatial Data Gateway can serve data to





Federal Clearinghouse nodes and become a node itself for those layers for which the USDA is the steward.

## **Data Applicability to Flood Mapping Program**

County orthophoto mosaics can be used as FEMA base maps provided the compression does not reduce the usability of the image. These mosaics are much easier to work with, have more consistent image brightness, contrast and sometimes improved positional accuracy compared to the first generation tiled DOQs.

## **Data Availability**

The Geospatial Data Gateway provides access to many different data layers, which may be updated as frequently as once per week. The most critical themes are generally available nationwide.

## Critical Themes

- Orthoimagery
- o Soils
- o Common Land Unit (CLU)

## **Data Ordering**

Data is available for order online at <a href="http://datagateway.nrcs.usda.gov/NextPage.asp">http://datagateway.nrcs.usda.gov/NextPage.asp</a>. Users can either download the data from the website directly, retrieve it from an FTP site, or order it on CD or DVD.

## **US Census MAF/TIGER Accuracy Improvement Project (MTAIP)**

http://www.census.gov/geo/www/tiger/index.html

## **Program Highlights**

## Data Product

Street centerline files with road names

#### Advantages

- Realigned files accurate enough to use as FEMA base map
- Smaller, often easier to work with than orthophotos
- Vector based maps can be easier to read

#### Disadvantages

- Program extends from 2004 to 2008. Limited availability currently.
- Some communities may prefer orthophotos

#### **Program Overview**

The US Census Bureau is realigning the street

features in a portion of the nation's counties or statistically equivalent entities each year until all counties are completed in 2008.

## **Data Details and Availability**

The 2004 First Edition TIGER/Line files is the first version to include a significant number of counties or statistically equivalent entities containing realigned street feature coordinates that have progressed through the MAF Accuracy Improvement Project. A listing of these counties follows this document.

With the 2004 First Edition TIGER/Line files, the U.S. Census Bureau is beginning twice a year releases of the TIGER/Line files. The 2004 First Edition TIGER/Line files are the first of two versions of the TIGER/Line files that will contain 2004 geographic boundaries.

#### **Data Applicability to Flood Mapping Program**

Realigned files accurate enough to use as FEMA base map.

## **Data Ordering**

Data is available directly from the US Census website. Currently, the 2004 TIGER/Line Files are available online in ASCII format and are free to download.

In addition, you can purchase the files on CD-ROM or DVD from the Customer Services Center at (301) 763-INFO (4636).





## **National Geospatial-Intelligence Agency (NGA)**

www.nga.mil

## **Program Highlights**

## Data Product

High resolution LIDAR of select urban areas

#### Advantages

Very high accuracy, density

## Disadvantages

- o Coverage is generally small areas in urban cores
- o Some processing is required to ensure proper bare earth model for flood study

## **Program Overview**

NGA has a goal to collect LIDAR over major urban areas in the U.S. There is not consistent funding, so future collections are unpredictable.

## **Data Details and Availability**

There are limitations for the use of the data. NGA will make the data available to FEMA and FEMA contractors working on a flood study. However, the data can be used for flood studies only and not distributed to anyone else or used for other purposes.

## **Data Applicability to Flood Mapping Program**

These data meet FEMA's terrain mapping requirements for all risk classes.

## **Data Ordering**

To order data, contact Alan Lundy-Ponce at (703) 317-6520 or alan.lundy-ponce@mapmodteam.com.

## 2004 First Edition TIGER/Line(R) Files

The Census Bureau has realigned street features in the counties or statistically equivalent entities listed below as part of the MAF/TIGER Accuracy Improvement Project (MTAIP) using sources with a horizontal spatial accuracy of circular error 95 (CE95) at 7.6 meters or better. Information about the source and the horizontal positional accuracy of that source appears in the county-based metadata included as part of each compressed 2004 First Edition TIGER/Line file. The 2004 First Edition TIGER/Line Technical Documentation has further information on the use of Record Type M to determine the spatial accuracy for any individual line segment.

06007	Butte, CA	13281	Towns, GA	21093	Hardin, KY
06073	San Diego, CA	13291	Union, GA	21099	
08029	Delta, CO	13297	Walton, GA	21105	
11001	Washington, DC	13299	Ware, GA	21113	Jessamine, KY
12005	Bay, FL	13301	Warren, GA	21115	Johnson, KY
12031	Duval, FL	13303	Washington, GA	21117	Kenton, KY
13001	Appling, GA	13307	Webster, GA	21123	Larue, KY
13003	Atkinson, GA	13311	White, GA		Laurel, KY
13005	Bacon, GA	17037	DeKalb, IL		Lewis, KY
13011	Banks, GA	17097	Lake, IL	21139	
13017	Ben Hill, GA	17175	Stark, IL	21141	•
13025	Brantley, GA	18057	Hamilton, IN		Lyon, KY
13029	Bryan, GA	18059	Hancock, IN	21145	-
13031	Bulloch, GA	18069	Huntington, IN	21149	
13039	Camden, GA	18097	Marion, IN	21151	Madison, KY
13049	Charlton, GA	19013	Black Hawk, IA	21155	Marion, KY
13051	Chatham, GA	19041	Clay, IA	21157	Marshall, KY
13059	Clarke, GA	19085	Harrison, IA	21161	Mason, KY
13065	Clinch, GA	19113	Linn, IA	21163	Meade, KY
13069	Coffee, GA	19155	Pottawattamie, IA	21167	Mercer, KY
13071	Colquitt, GA	19181	Warren, IA	21169	Metcalfe, KY
13085	Dawson, GA	20055	Finney, KS	21171	Monroe, KY
13093	Dooly, GA	20091	Johnson, KS	21179	Nelson, KY
13103	Effingham, GA	20103	Leavenworth, KS	21185	Oldham, KY
13105	Elbert, GA	21005	Anderson, KY	21187	Owen, KY
13117	Forsyth, GA	21007	Ballard, KY	21189	Owsley, KY
13119	Franklin, GA	21009	Barren, KY	21193	
13127	Glynn, GA	21011	Bath, KY	21201	Robertson, KY
13133	Greene, GA	21013		21207	Russell, KY
13137	Habersham, GA	21017	Bourbon, KY	21209	Scott, KY
13139	Hall, GA	21021	Boyle, KY	21211	Shelby, KY
13157	Jackson, GA	21023	Bracken, KY	21213	Simpson, KY
13159	Jasper, GA	21025	Breathitt, KY	21215	Spencer, KY
13163	Jefferson, GA	21029	Bullitt, KY	21223	Trimble, KY
13173	Lanier, GA	21037	Campbell, KY	21227	Warren, KY
13179	Liberty, GA	21039	Carlisle, KY	21229	Washington, KY
13183	Long, GA	21041	Carroll, KY	21233	Webster, KY
13187	Lumpkin, GA	21051	Clay, KY	21235	Whitley, KY
13191	McIntosh, GA	21057	Cumberland, KY	21239	Woodford, KY
13195	Madison, GA	21061	Edmonson, KY	22019	Calcasieu, LA
13201	Miller, GA	21063	Elliott, KY	22051	Jefferson, LA
13219	Oconee, GA	21069	Fleming, KY	22055	Lafayette, LA
13221	Oglethorpe, GA	21073	Franklin, KY	22071	Orleans, LA
13229	Pierce, GA	21075	Fulton, KY	22087	St. Bernard, LA
13241	Rabun, GA	21077	Gallatin, KY	22089	St. Charles, LA
13253	Seminole, GA	21081	Grant, KY	22093	St. James, LA
13255	Spalding, GA	21083	Graves, KY	22095	St. John the Baptist, LA
13257	Stephens, GA	21091	Hancock, KY	22109	Terrebonne, LA

24005	Baltimore, MD	28033	DeSoto, MS	39055	Geauga, OH
24009	Calvert, MD	28109	Pearl River, MS	39063	Hancock, OH
24011	Caroline, MD	29047	Clay, MO	39069	Henry, OH
24015	Cecil, MD	29075	Gentry, MO	39079	Jackson, OH
24017	Charles, MD	29117	Livingston, MO	39091	Logan, OH
24019	Dorchester, MD	29135	Moniteau, MO	39097	Madison, OH
24027	Howard, MD	29177	Ray, MO	39107	Mercer, OH
24031	Montgomery, MD	29213	Taney, MO	39109	Miami, OH
24033	Prince George's, MD	29227	Worth, MO	39129	Pickaway, OH
24039	Somerset, MD	34001	Atlantic, NJ	39133	Portage, OH
24047	Worcester, MD	34005	Burlington, NJ	39135	Preble, OH
24510	Baltimore city, MD	34015	Gloucester, NJ	39137	Putnam, OH
26005	Allegan, MI	34019	Hunterdon, NJ	39139	Richland, OH
26011	Arenac, MI	35001	Bernalillo, NM	39149	Shelby, OH
26013	Baraga, MI	35011	De Baca, NM	39159	Union, OH
26015	Barry, MI	35017	Grant, NM	39161	Van Wert, OH
26017	Bay, MI	35061	Valencia, NM	39169	Wayne, OH
26021	Berrien, MI	36047	Kings, NY	39171	Williams, OH
26023	Branch, MI	36057	Montgomery, NY	39175	Wyandot, OH
26025	Calhoun, MI	36081	Queens, NY	41007	Clatsop, OR
26027	Cass, MI	36093	Schenectady, NY	42001	Adams, PA
26029	Charlevoix, MI	37005	Alleghany, NC	42027	Centre, PA
26035	Clare, MI	37009	Ashe, NC	42029	Chester, PA
26045	Eaton, MI	37025	Cabarrus, NC	42031	Clarion, PA
26047	Emmet, MI	37037	Chatham, NC	42037	Columbia, PA
26055	Grand Traverse, MI	37061	Duplin, NC	42057	Fulton, PA
26057	Gratiot, MI	37141	Pender, NC	42081	Lycoming, PA
26059	Hillsdale, MI	37151	Randolph, NC	42101	Philadelphia, PA
26063	Huron, MI	37157	Rockingham, NC	44001	Bristol, RI
26065	Ingham, MI	37177	Tyrrell, NC	44003	Kent, RI
26067	Ionia, MI	37183	Wake, NC	44005	Newport, RI
26073	Isabella, MI	38015	Burleigh, ND	44009	Washington, RI
26075	Jackson, MI	38017	Cass, ND	45063	Lexington, SC
26077	Kalamazoo, MI	38019	Cavalier, ND	46003	Aurora, SD
26087	Lapeer, MI	38027	Eddy, ND	46005	Beadle, SD
26091	Lenawee, MI	38031	Foster, ND	46007	Bennett, SD
26093	Livingston, MI	38047	Logan, ND	46009	Bon Homme, SD
26099	Macomb, MI	38049	McHenry, ND	46011	Brookings, SD
26101	Manistee, MI	38051	McIntosh, ND	46015	Brule, SD
26107	Mecosta, MI	38063	Nelson, ND	46017	Buffalo, SD
26113	Missaukee, MI	38067	Pembina, ND	46019	Butte, SD
26115	Monroe, MI	38069	Pierce, ND	46021	Campbell, SD
26117		38071	Ramsey, ND	46023	Charles Mix, SD
26119		38075	Renville, ND	46025	Clark, SD
26123	30 '	38081	Sargent, ND	46027	Clay, SD
26125		38083	Sheridan, ND	46029	Codington, SD
26129	<del>-</del>	38095	Towner, ND	46031	Corson, SD
26137	<del>-</del>		Walsh, ND	46033	Custer, SD
26139			Allen, OH	46035	Davison, SD
26141	Presque Isle, MI	39005	Ashland, OH	46041	Dewey, SD
26143			Athens, OH	46043	Douglas, SD
26147		39011	•	46051	Grant, SD
26149	· · · · · · · · · · · · · · · · · · ·	39023		46053	Gregory, SD
26151		39025		46055	Haakon, SD
26155		39027		46057	Hamlin, SD
26157		39031	Coshocton, OH	46061	Hanson, SD
26159		39033	Crawford, OH	46065	Hughes, SD
26161		39037	Darke, OH	46067	Hutchinson, SD
27031		39039	Defiance, OH	46069	Hyde, SD
27037		39041	Delaware, OH	46071	Jackson, SD
27141	Sherburne, MN	39051	Fulton, OH	46073	Jerauld, SD

46075	Jones, SD
46077	Kingsbury, SD
46079	Lake, SD
46081	Lawrence, SD
46087	McCook, SD
46089	McPherson, SD
46091	Marshall, SD
46095	Mellette, SD
46097	Miner, SD
46101	Moody, SD
46107	Potter, SD
46109	Roberts, SD
46111	Sanborn, SD
46115	Spink, SD
46117	Stanley, SD
46119	Sully, SD
46123	Tripp, SD
46125	Turner, SD
46127	Union, SD
46135	Yankton, SD
46137	Ziebach, SD
48021	Bastrop, TX
48045	Briscoe, TX
48053	Burnet, TX
48055	Caldwell, TX
48069	Castro, TX
48075	Childress, TX
48085	Collin, TX
48149	Fayette, TX
48167	Galveston, TX
48183	Gregg, TX

48191 Hall, TX 48231 Hunt, TX 48257 Kaufman, TX 48265 Kerr, TX 48287 Lee, TX 48299 Llano, TX 48309 McLennan, TX 48329 Midland, TX 48339 Montgomery, TX 48349 Navarro, TX 48369 Parmer, TX 48397 Rockwall, TX 48425 Somervell, TX 48437 Swisher, TX 48441 Taylor, TX 48485 Wichita, TX 48487 Wilbarger, TX 51005 Alleghany, VA 51015 Augusta, VA 51017 Bath, VA 51051 Dickenson, VA 51057 Essex, VA 51073 Gloucester, VA 51075 Goochland, VA 51081 Greensville, VA 51091 Highland, VA 51097 King and Queen, VA 51101 King William, VA 51103 Lancaster, VA 51115 Mathews, VA

51119 Middlesex, VA 51133 Northumberland, VA 51137 Orange, VA 51145 Powhatan, VA 51159 Richmond, VA 51161 Roanoke, VA 51193 Westmoreland, VA 51510 Alexandria, VA 51570 Colonial Heights, VA 51580 Covington, VA 51600 Fairfax, VA 51660 Harrisonburg, VA 51670 Hopewell, VA 51678 Lexington, VA 51730 Petersburg, VA 51770 Roanoke, VA 51775 Salem, VA 51790 Staunton, VA 51820 Waynesboro, VA 54009 Brooke, WV 55029 Door, WI 55039 Fond du Lac. WI 55047 Green Lake, WI